

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

CLAIM LISTING:

1 Claims 1-6. (Canceled)

1 7. (Currently amended) A method ~~for~~ allowing a client application running
2 on a client machine linked to a client network to establish communication, ~~in~~
3 ~~a client network, a first connection at a first security level with a first port of~~
4 a server application hosted in a server machine linked to a server network, in
5 order to ~~send~~ exchange messages addressed to with the server machine
6 application, said **messages** passing ~~from~~ between the client network ~~to~~ and
7 the server network through a network layer ~~(CR)~~ of a gateway machine, the
8 method comprising:

9 A) receiving a request from the client application to establish

10 communication at a first security level to a first port on the server machine;

11 B) creating a first port on the gateway machine;

12 C) creating at least one first created process on the gateway machine;

13 D) establishing a first connection from the client application to the first port

14 on the gateway machine, the first connection connecting the client machine

15 to the gateway machine for the exchange of messages at the first security

16 level;

17 E) creating a second port in the gateway machine;

18 F) establishing a second connection from the second port of the gateway

19 machine to the first port of the server machine, the second connection to be

used to exchange messages at a second security level which is reduced from the first security level; and,

G) rerouting to the second port of the gateway machine, by ordering the network layer (CR) of the gateway machine, any messages sent from the client network and addressed to the first port of the server machine;

H) receiving at the second port of the gateway machine a request addressed to the first port of the server application to establish said first connection with the first port of the server application; routing, to the first port of the gateway machine, messages received by the gateway machine that are addressed to the client application on the client machine; and,

listening to the second port of the gateway machine to detect the request addressed to the first port of the server application to establish said first connection with the first port of the server application;

generating, in the gateway machine, a thread which establishes said first connection; and generating a second connection at a second security level between the gateway machine and a third port of the server application, the third port being configured to receive at least one message at the second security level from the gateway machine via said second connection;

I) the first created process on the gateway machine handling security processing at the first security level for said messages sent and said messages received on the first port of the gateway machine, thereby removing from the server machine, security processing at the first security level for these messages .

wherein the generating of said thread and said second connection is performed in response to the detection of the request addressed to the first port of the server application to establish said first connection.

1 8. (Currently amended) A method according to claim 7, wherein said first
2 created process thread: establishes, in a first phase, said first connection at
3 the first security level in a first interface associated with the ~~second~~ first port
4 and with said request;
5 establishes, in a second phase, said second connection at the second security
6 level in a second interface to the ~~second~~ third port in the server machine;
7 writes, in a third phase, at the second security level ~~in~~ to the second
8 interface, any message read in the first interface at the first security level,
9 and writes, in a fourth phase, at the first security level ~~in~~ to the first
10 interface, any message read in the second interface at the second security
11 level.

1 Claim 9. (Canceled)

1 10. (Currently amended) A method according to claim 7, wherein ~~said~~
2 ~~creating and rerouting steps D, E, and F~~ are executed automatically by ~~a~~ the
3 first created process of the gateway machine, and wherein said first created
4 process generates a second process that executes ~~said listening and~~
5 ~~generating steps G and H~~.

1 11. (Currently amended) A method according to claim 8, wherein said
2 ~~creating, and rerouting steps D, E, and F~~ are executed automatically by ~~a~~ the
3 first created process of the gateway machine, and wherein said first created
4 process generates a the second process that executes ~~said listening and~~
5 ~~generating steps G and H~~.

1 Claims 12-13 (Canceled)

1 14. (Currently amended) A method for allowing a client application to
2 establish, in a client network, a first connection at a first security level with a
3 first port of a server application hosted in a server machine linked to a server
4 network,
5 in order to send messages addressed to the server machine, said messages
6 passing from the client network to the server network through a network
7 layer-~~(CR)~~ of a gateway machine, the method comprising:
8 generating, in the gateway machine, a processing thread which establishes
9 said first connection;
10 activating, in the gateway machine, a secure application proxy that performs
11 security processing at the first security level and that reroutes the messages
12 addressed to the first port of the server application away from the first
13 connection; and,
14 establishing at a second security level lower than the first security level, a
15 second connection ~~at a second security level~~ between a second port of the
16 server application and the gateway machine, said second port being
17 configured to receive at least one message at a second security level from the
18 gateway machine via said second connection,
19 and wherein said generating step is performed in response to detection of a
20 request from the client application addressed to the first port of the server
21 application to establish said first connection; and
22 wherein said second connection is unknown to said client application.

1 Claims 15-19 (Canceled)

1 20. (Currently amended) A method according to claim 7, further
2 comprising deleting, by ordering the network layer (~~CR~~) of the gateway
3 machine, ~~any message~~ messages sent from the client network to ~~the third a~~
4 port other than the first port located in the server machine regardless of a
5 security level of said message sent to the ~~third~~ port other than the first port.

1 21. (Canceled)

1 22. (Previously presented) A method as claimed in claim 14, wherein the
2 rerouting of the messages addressed to the first port of the server application
3 is done in a way that is transparent to the client application.

1 23. (New) A method as claimed in claim 7, wherein the rerouting of the
2 messages addressed to the first port of the server application is done in a
3 way that is transparent to the client application.